ANH Application Catalog ELISA

ELISA

ELISA (enzyme-linked immunosorbent assay) is a plate-based assay technique designed for detecting and quantifying soluble substances such as peptides, proteins, antibodies, and hormones. Other names, such as enzyme immunoassay (EIA), are also used to describe the same technology. In an ELISA, the antigen (target macromolecule) is immobilized on a solid surface (microplate) and then complexed with an antibody that is linked to a reporter enzyme. Detection is accomplished by measuring the activity of the reporter enzyme via incubation with the appropriate substrate to produce a measurable product. The most crucial element of an ELISA is a highly specific antibody-antigen interaction.

ANH provides products for supporting ELISA such as ELISA plate, primary antibody, secondary antibody, control antibody etc.

1. ELISA Plate



Corning EIA/RIA polystyrene microplates are suitable for immunoassay. There are Medium Binding (Not-treated) and High Binding surfaces which are hydrophobic, non-treated polystyrene surfaces that bind biomolecules through passive adsorption.

• Medium Binding (Not-treated) surfaces are ideal for large (>20kD), hydrophobic biomolecules and capture approximately 100 to 200 ng IgG/cm².

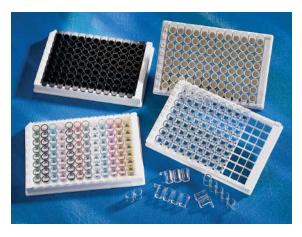
• High Binding surfaces are designed to facilitate binding of medium (>10kD) and large

biomolecules with ionic groups and/or hydrophobic regions. The High Binding surface has capacity to bind up to 500 ng IgG/cm² which makes it ideal for enzyme-linked immunoassay (ELISA).

| Brand | Cat. No | Description | Unit/Case | Stock Items |
|---------|---------|--|----------------------|----------------|
| Corning | 3590 | 96-Well EIA/RIA Clear Flat Bottom Polystyrene High Binding Microplate, Individually Wrapped, Without Lid, Non-Sterile | 1/Pack, 100/Case | \checkmark |
| Corning | 3591 | 96-Well EIA/RIA Clear Flat Bottom Polystyrene Not Treated Microplate, Individually Wrapped, Without Lid, Non-Sterile | 1/Pack, 50/Case | |
| Corning | 3797 | 96-Well EIA/RIA Clear Round Bottom Polystyrene Not Treated Microplate, Without Lid, Non-Sterile | 25/Pack, 100/Case | |
| Corning | 9017 | 96-Well EIA/RIA Clear Flat Bottom Polystyrene Not Treated Microplate, without Lid, Non-Sterile | 25/Pack, 100/Case | \checkmark |
| Corning | 9018 | 96-Well Clear Flat Bottom Polystyrene High Bind Microplate, without Lid, Non-Sterile | 25/Pack, 100/Case | \checkmark |



2. Stripwell



Corning 96-well polystyrene Stripwell[™] microplates are designed for in vitro diagnostic assays. The flat bottom strips are designed to easily break apart and are pre-assembled in an "egg-crate" style strip holder that allows each individual well to be positioned back into the microplate once broken.

• Stripwell microplates have 96-well flat bottom polystyrene format.

- Medium Binding (Not-treated) and High Binding surfaces
- Low volume and standard Stripwell microplates have well volumes of 190 μL and 360 μL , respectively.
- 1 x 8 strips are designed to fit only one way into the strip holder, eliminating the chance of misorientation.

| Brand | Cat. No | Description | Unit/Case | Stock Items |
|---------|---------|--|----------------------|----------------|
| Corning | 2481 | 96-Well Black Polystyrene Medium Binding Low Volume Stripwell Microplate, without Lid, Non-Sterile | 25/Pack, 100/Case | |
| Corning | 2482 | 96-Well Black Polystyrene Medium Binding Low Volume Stripwell Microplate, without Lid, Non-Sterile | 25/Pack, 100/Case | |
| Corning | 2483 | 96-Well Black Polystyrene High Binding Low Volume Stripwell Microplate, without Lid, Non-Sterile | 25/Pack, 100/Case | |
| Corning | 2484 | 96-Well White Polystyrene Medium Binding Low Volume Stripwell Microplate, without Lid, Non-Sterile | 25/Pack, 100/Case | |
| Corning | 2485 | 96-Well White Polystyrene High Binding Low Volume Stripwell Microplate, without Lid, Non-Sterile | 25/Pack, 100/Case | |



| Corning | 2572 | 96-Well Stripwell Egg Crate Strip Holder | 5/Pack, 20/Case | \checkmark |
|---------|------|--|-----------------------|--------------|
| Corning | 2578 | 96-Well Strip Ejector | 5/Case | |
| Corning | 2580 | 96-Well Clear Polystyrene High Binding Stripwell Strips, without Frame or Lid, Non-Sterile | 200/Pack, 800/Case | ~ |
| Corning | 2592 | 96-Well Clear Polystyrene High Binding Stripwell Microplate, without Lid, Non-Sterile | 25/Pack, 100/Case | |
| Corning | 2593 | 96-Well Clear Polystyrene Not Treated Stripwell Microplate, without Lid, Non-Sterile | 25/Pack, 100/Case | |

3. Primary Antibody

Primary antibodies are versatile biological reagents used to detect a wide range of antigenic targets. Antibodies against a target of interest are raised in host species such as mouse, sheep, rabbit, rat or goat. The target is often a protein, and is usually from a species different to that of the host. Common target species are human, mouse, rat and veterinary species but can also be viral, bacterial or chemical depending on the area of research.

Our catalogue of high quality monoclonal and polyclonal primary antibodies are suitable for use in numerous applications, including flow cytometry, ELISA, immunohistochemistry, immunofluorescence and western blot. They are available labelled with a variety of fluorescent dyes or proteins including FITC, PE, PerCP and APC, enzymes such as horseradish peroxidase, or biotin for further amplification via labelled streptavidin. Also available without a label, our unconjugated antibodies require a species-specific secondary antibody to enable detection.

| Brand | Cat. No | Description | Host | Unit | Application |
|---------------------|--------------|--|---------|--------|--|
| Nordic & Exalpha | MUB036 6P | Armenian Hamster anti CD27 | Mouse | 0.1 mg | - ELISA - Flow Cytometry - Immunoprecipitation |
| Nordic & Exalpha | MUB036 7P | CD15/ Lewis X antigen/ alpha-(1,3)-fucosyltr ansferase 4 | Mouse | 0.1 mg | - Flow Cytometry -Immunocytochemistry |
| Nordic & Exalpha | ABaLFA- B | Chicken anti Bacillus anthracis Lethal Factor A, conjugated with Biotin | Chicken | 0.1 mg | - ELISA - Western Blotting |
| Nordic & Exalpha | ABC3d | Chicken anti Bovine Complement C3d | Chicken | 10 mg | - ELISA - Western Blotting |
| Nordic & Exalpha | AHHg | Chicken anti Human Haemoglobin | Chicken | 0.1 mg | - ELISA - Western Blotting |
| Nordic & Exalpha | ASoyP | Chicken anti Soy Protein | Chicken | 0.1 mg | - ELISA - Western Blotting |
| Nordic & Exalpha | MUB010 9P | Mouse anti actin alpha-cardiac | Mouse | 0.1 mg | - ELISA - Immunoblotting - Western Blotting |
| Nordic & Exalpha | GM-4091 | Mouse anti CD14 | Mouse | 0.2 mg | - Flow Cytometry - Immunofluorescence |
| Nordic & Exalpha | GM-4011 | Mouse anti CD3 | Mouse | 0.2 mg | - Flow Cytometry - Immunofluorescence |
| Nordic & Exalpha | GM-4061 | Mouse anti CD45 | Mouse | 0.2 mg | - Flow Cytometry - Immunofluorescence |
| Nordic & Exalpha | GM-4101 | Mouse anti CD65s | Mouse | 0.2 mg | - Flow Cytometry - Immunofluorescence |



| Nordic & Exalpha | MUB205 5P | Mouse anti CD8 | Mouse | 0.1 mg | - ELISA Flow - Cytometry -Immunocytochemistry |
|---------------------|--------------|--|--------|--------|--|
| Nordic & Exalpha | MUB034 0S | Mouse anti Cytokeratin 13 | Mouse | 1 mL | - Immunoblotting - Western Blotting |
| Nordic & Exalpha | MUB034 3S | Mouse anti Cytokeratin 20 | Mouse | 1 mL | -Immunocytochemistry - Immunoprecipitation - Western Blotting |
| Nordic & Exalpha | MUB201 OP | Mouse anti Human CD20 | Mouse | 0.1 mg | ELISA Flow Cytometry Immunohistochemistry (frozen) Immunoprecipitation |
| REPROCELL | 09-0006 | StemAb SSEA-4 Antibody (Purified), Mouse anti-Human | Mouse | 100 µL | -Immunocytochemistry -Flow Cytometry |
| REPROCELL | 09-0010 | StemAb TRA-1-60 Antibody (Purified), Mouse anti-Human | Mouse | 100 µL | -Immunocytochemistry -Flow Cytometry |
| REPROCELL | 09-0011 | StemAb TRA-1-81 Antibody (Purified), Mouse anti-Human | Mouse | 100 µL | -ICC analysis -Immunocytochemistry -Flow cytometry |
| REPROCELL | 09-0014 | StemAb SSEA-3 Antibody (Purified), Rat anti-Mouse/Human | Mouse | 100 µL | -Immunocytochemistry -Flow cytometry |
| REPROCELL | 09-0020 | temAb Nanog Antibody (Affinity Purified), Rabbit anti-Mouse/Human | Rabbit | 100 µL | -Immunocytochemistry |



| REPROCELL | 09-0021 | StemAb Klf4 Antibody (Purified), Mouse anti-Mouse/Human | Mouse | 100 µL | -Immunocytochemistry |
|-----------|---------|--|--------|--------|---|
| REPROCELL | 09-0023 | StemAb Oct4 antibody (Affinity Purified), Rabbit anti-Mouse/Human | Rabbit | 100 µL | -Immunocytochemistry -Flow cytometry |
| REPROCELL | 09-0024 | StemAb Sox2 Antibody (Affinity Purified), Rabbit anti-Mouse/Human | Rabbit | 100 µL | -Immunocytochemistry |
| REPROCELL | 09-0097 | StainAlive SSEA-4 Antibody (DyLight 550), Mouse anti-Human | Mouse | 100 µL | - ICC analysis |

For more products, please visit <u>https://www.nordicmubio.com/</u> and <u>https://www.exalpha.com/</u>

4. Secondary Antibody

Secondary antibodies are valuable biological tools that are employed extensively in research applications and diagnostic assays. Secondary antibodies are conjugated to reporter molecules, such as enzymes or fluorochromes, which provide a signal that can be detected and measured. They are commonly used in antibody based applications to detect an antigen specific primary antibody that is not already conjugated to a reporter. Applications that may require a secondary antibody include immunohistology, immunofluorescence, western blotting, enzyme linked immunosorbent assays (ELISA), flow cytometry and lateral flow assays. Careful selection of suitable secondary antibodies also allows researchers to perform simultaneous labelling of multiple targets in a single sample.

A diverse range of monoclonal (Mab), polyclonal (PAb) secondary antibodies are available that vary according to the host, in which the antibody was raised. They are also grouped according to characteristics of the primary antibody recognised with respect to animal species, antibody class and region of the antibody. Secondary



antibodies may also be supplied as whole antibodies or as antibody fragments, which can provide technical advantages in some applications.

| Brand | Cat. No | Description | Host | Unit | Application |
|---------------------|------------------|---|---------|--------|-------------------------------|
| Nordic & Exalpha | ADIG | Chicken anti Dog IgG (H+L) | Chicken | 0.5 mg | - ELISA - Western Blotting |
| Nordic & Exalpha | AHIgGFab | Chicken anti Human IgG (Fab)2 | Chicken | 0.5 mg | - ELISA - Western Blotting |
| Nordic & Exalpha | AMIG | Chicken anti Mouse IgG (H+L) | Chicken | 0.5 mg | - ELISA - Western Blotting |
| Nordic & Exalpha | ARIG | Chicken anti Rabbit IgG (H+L) | Chicken | 0.5 mg | - ELISA - Western Blotting |
| Nordic & Exalpha | DAIgY | Donkey anti Chicken IgY (H+L) | Donkey | 0.5 mg | - ELISA - Western Blotting |
| Nordic & Exalpha | GACh/Fab | Goat anti Chicken IgG Fab | Goat | 1 mL | -Immunoelectrophoresis |
| Nordic & Exalpha | GAHu/IgE (Fc) | Goat anti Human IgE (Fc specific) | Goat | 1 mL | -Immunoelectrophoresis |
| Nordic & Exalpha | GAM/Fab | Goat anti Mouse IgG Fab | Goat | 1 mL | -Immunoelectrophoresis |
| Nordic & Exalpha | GAM/Ig | Goat anti Mouse IgG1 IgG2a IgG2b IgG3 IgA IgM (heavy and light chains) | Goat | 1 mL | -Immunoelectrophoresis |
| Nordic & Exalpha | GAR/IgG (H+L) | Goat anti Rabbit IgG (heavy and light chains) | Goat | 1 mL | -Immunoelectrophoresis |
| Nordic & Exalpha | GAM/Ig (GAMD) | Goat Mouse IgG1 IgG2a IgG2b IgG3 IgA IgM IgD (heavy and light chains) | Goat | 1 mL | -Immunoelectrophoresis |



| Nordic & Exalpha | MAHu/IgAc | Mouse anti Human IgA (class specific) | Mouse | 0.5 mg | - ELISA Flow - Immunocytochemistry |
|---------------------|------------------------|--|--------|--------|--|
| Nordic & Exalpha | MAHu/IgM | Mouse anti Human IgM (class specific) | Mouse | 0.5 mg | - ELISA Flow - Immunocytochemistry |
| Nordic & Exalpha | R7AG/IgG (H+L)/Bio | Rabbit anti Goat IgG (heavy and light chains) (non Human and Mouse), conjugated with Biotin | Rabbit | 1 mL | -ELISA -Immunocytochemistry - Dot blot - Immunoblotting |
| Nordic & Exalpha | RAHu/IgA (Fc)/TRITC | Rabbit anti Human IgA (Fc specific), conjugated with TRITC | Rabbit | 1 mL | -ELISA -Immunocytochemistry |
| Nordic & Exalpha | RASh/IgM (H+L)/7S | Rabbit anti Sheep IgM (heavy and light chains) | Rabbit | 1 mg | -ELISA -Immunocytochemistry - Dot blot - Immunoblotting |

For more products, please visit <u>https://www.nordicmubio.com/</u> <u>https://www.exalpha.com/</u> and <u>https://www.reprocell.com/</u>

5. Control Antibody

Control antibodies are a vital part of assay design and ensure signal detected during antibody-based applications, can be attributed to specific antigen binding, rather than non-specific background staining.

Negative isotype controls function by determining the level of non-specific binding of the primary antibody to target. This is achieved by matching the control antibody host species, isotype, and if applicable fluorochrome, to that of the experimental specific antibody. A matched fluorochrome is required if the experimental primary antibody is directly conjugated. Negative control antibody is deliberately generated against a chemical or target not expressed by the cell or tissue of interest, so any binding will be non-specific in nature. This non-specific binding is most frequently



caused by Fc receptors expressed on the surface of the target sample. These receptors bind the antibody's Fc region independently of their Fab epitope binding domains.

Control antibodies are most commonly used in flow cytometry or immunohistochemistry to determine levels of background staining, but can also be utilized as blocking agents before addition of primary antibody.

| Brand | Cat. No | Description | Host | Unit | Application |
|---------------------|------------------------------|-------------------------------------|---------------|-----------|--|
| Nordic & Exalpha | FShAHu/I gG(Fc)/T RITC | Bovine IgG | Bovine | 100 mg | Reference antigen Calibrator Coating protein Blocking agent |
| Nordic & Exalpha | GIgG | Goat IgG | Goat | 100 mg | - Immunoassays |
| Nordic & Exalpha | GpIgG | Guinea Pig IgG | Guinea Pig | 10 mg | - Immunoassays |
| Nordic & Exalpha | MonIgG | Monkey (Rhesus) IgG | Monkey | 10 mg | Reference antigen Calibrator Coating protein Blocking agent |
| Nordic & Exalpha | 0G11 | Mouse IgG1 Negative Control | Mouse | 100 µg | - Flow Cytometry |
| Nordic & Exalpha | IgY-010 | Normal Chicken IgY (egg-derived) | Chicken | 10 mg | - ELISA - Western Blotting |
| Nordic & Exalpha | DIgY-010 | Normal Duck IgY (egg-derived) | Duck | 10 mg | - ELISA - Western Blotting |
| Nordic & Exalpha | GIgY-010 | Normal Goose IgY (egg-derived) | Goose | 10 mg | - ELISA - Western Blotting |
| Nordic & Exalpha | OIgY-010 | Normal Ostrich IgY (egg-derived) | Ostrich | 10 mg | - ELISA - Western Blotting |
| Nordic & Exalpha | QuIgY-01 0 | Normal Quail IgY (egg-derived) | Quail | 10 mg | - ELISA - Western Blotting |



| Nordic & Exalpha | TIgY-010 | Normal Turkey IgY (egg-derived) | Turkey | 10 mg | - ELISA - Western Blotting |
|---------------------|----------|------------------------------------|--------|-----------|-------------------------------|
| Nordic & Exalpha | RIgG | Rabbit IgG | Rabbit | 100 mg | - Immunoassays |
| Nordic & Exalpha | RaIgG | Rat IgG | Rat | 10 mg | - Immunoassays |
| Nordic & Exalpha | ShIgG | Sheep IgG | Sheep | 100 mg | - Immunoassays |
| Nordic & Exalpha | SwIgG | Swine IgG | Swine | 100 mg | - Immunoassays |

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